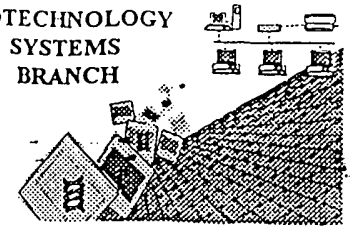
BIOTECHNOLOGY SYSTEMS BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/660,118
Source: OIPE
Date Processed by STIC: 9-24-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry directly to:**
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
   Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to:** U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 10/660,118

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1	Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor **after** creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2	Invalid Line Length	The rules require that a line **not exceed** 72 characters in length. This includes white spaces.
3	Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.
4	Non-ASCII	The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**
5	Variable Length	Sequence(s)____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6	PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
7	Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
8	Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If **intentional**, please insert the following lines for **each** skipped sequence. <210> sequence id number <400> sequence id number 000
9	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.
10	Invalid <213> Response	Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence
11 X	Use of <220>	Sequence(s) 1-3 missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
12	PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13	Misuse of n/Xaa	"n" can **only** represent a single nucleotide; "Xaa" can **only** represent a single amino acid

OIPE

RAW SEQUENCE LISTING DATE: 09/24/2003
PATENT APPLICATION: **US/10/660,118** TIME: 10:37:18

Input Set : **A:\2879-98.ST25.txt**
Output Set: **N:\CRF4\09242003\J660118.raw**

```
     3 <110> APPLICANT: White, Carl W.
     5 <120> TITLE OF INVENTION: Product and Process for Liquefaction of Mucus or Sputum
     7 <130> FILE REFERENCE: 2879-98
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/660,118
C--> 9 <141> CURRENT FILING DATE: 2003-09-10
     9 <150> PRIOR APPLICATION NUMBER: 60/409,960
    10 <151> PRIOR FILING DATE: 2002-09-10
    12 <150> PRIOR APPLICATION NUMBER: 60/462,082
    13 <151> PRIOR FILING DATE: 2003-04-11
    15 <160> NUMBER OF SEQ ID NOS: 15
    17 <170> SOFTWARE: PatentIn version 3.1
    19 <210> SEQ ID NO: 1
    20 <211> LENGTH: 4
    21 <212> TYPE: PRT
    22 <213> ORGANISM: Artificial sequence
    24 <220> FEATURE:
    25 <223> OTHER INFORMATION: peptide
    27 <400> SEQUENCE: 1
    29 Cys Gly Pro Cys
    30 1
    33 <210> SEQ ID NO: 2
    34 <211> LENGTH: 6
    35 <212> TYPE: PRT
    36 <213> ORGANISM: Artificial sequence
    38 <220> FEATURE:
    39 <223> OTHER INFORMATION: peptide
    41 <220> FEATURE:
    42 <221> NAME/KEY: misc_feature
    43 <222> LOCATION: (1)..(6)
    44 <223> OTHER INFORMATION: Xaa = any amino acid
    47 <400> SEQUENCE: 2
W--> 49 Xaa Cys Gly Pro Cys Xaa
    50 1               5
    53 <210> SEQ ID NO: 3
    54 <211> LENGTH: 6
    55 <212> TYPE: PRT
    56 <213> ORGANISM: Artificial sequence
    58 <220> FEATURE:
    59 <223> OTHER INFORMATION: peptide
    61 <400> SEQUENCE: 3
    63 Trp Cys Gly Pro Cys Lys
    64 1               5
    67 <210> SEQ ID NO: 4
```

Does Not Comply
Corrected Diskette Needed

insuficient explanation
give source of genetic material
See item 11 on error summary
report.

RAW SEQUENCE LISTING DATE: 09/24/2003
PATENT APPLICATION: **US/10/660,118** TIME: 10:37:18

Input Set : **A:\2879-98.ST25.txt**
Output Set: **N:\CRF4\09242003\J660118.raw**

68 <211> LENGTH: 109
69 <212> TYPE: PRT
70 <213> ORGANISM: Pseudomonas syringae
72 <400> SEQUENCE: 4
74 Met Ser Asn Asp Leu Ile Lys His Val Thr Asp Ala Ser Phe Glu Ala
75 1 5 10 15
78 Asp Val Leu Lys Ala Asp Gly Ala Val Leu Val Asp Tyr Trp Ala Glu
79 20 25 30
82 Trp Cys Gly Pro Cys Lys Met Ile Ala Pro Val Leu Asp Glu Ile Ala
83 35 40 45
86 Thr Thr Tyr Ala Gly Lys Leu Thr Ile Ala Lys Leu Asn Ile Asp Glu
87 50 55 60
90 Asn Gln Glu Thr Pro Ala Lys His Gly Val Arg Gly Ile Pro Thr Leu
91 65 70 75 80
94 Met Leu Phe Lys Asn Gly Asn Val Glu Ala Thr Lys Val Gly Ala Leu
95 85 90 95
98 Ser Lys Ser Gln Leu Ala Ala Phe Leu Asp Ala Asn Ile
99 100 105
102 <210> SEQ ID NO: 5
103 <211> LENGTH: 104
104 <212> TYPE: PRT
105 <213> ORGANISM: Porphyromonas gingivalis
107 <400> SEQUENCE: 5
109 Met Ala Leu Gln Ile Thr Asp Ala Thr Phe Asp Gly Leu Val Ala Glu
110 1 5 10 15
113 Gly Lys Pro Met Val Val Asp Phe Trp Ala Thr Trp Cys Gly Pro Cys
114 20 25 30
117 Arg Met Val Gly Pro Ile Ile Asp Glu Leu Ala Ala Glu Tyr Glu Gly
118 35 40 45
121 Arg Ala Ile Ile Gly Lys Val Asp Val Asp Ala Asn Thr Glu Leu Pro
122 50 55 60
125 Met Lys Tyr Gly Val Arg Asn Ile Pro Thr Ile Leu Phe Ile Lys Asn
126 65 70 75 80
129 Gly Glu Val Val Lys Lys Leu Val Gly Ala Gln Ser Lys Asp Val Phe
130 85 90 95
133 Lys Lys Glu Leu Asp Ala Leu Phe
134 100
137 <210> SEQ ID NO: 6
138 <211> LENGTH: 103
139 <212> TYPE: PRT
140 <213> ORGANISM: Listeria monocytogenes
142 <400> SEQUENCE: 6
144 Met Val Lys Glu Ile Thr Asp Ala Thr Phe Glu Gln Glu Thr Ser Glu
145 1 5 10 15
148 Gly Leu Val Leu Thr Asp Phe Trp Ala Thr Trp Cys Gly Pro Cys Arg
149 20 25 30
152 Met Val Ala Pro Val Leu Glu Glu Ile Gln Glu Glu Arg Gly Glu Ala
153 35 40 45
156 Leu Lys Ile Val Lys Met Asp Val Asp Glu Asn Pro Glu Thr Pro Gly

RAW SEQUENCE LISTING DATE: 09/24/2003
PATENT APPLICATION: **US/10/660,118** TIME: 10:37:18

Input Set : **A:\2879-98.ST25.txt**
Output Set: **N:\CRF4\09242003\J660118.raw**

```
157     50                  55                  60
160 Ser Phe Gly Val Met Ser Ile Pro Thr Leu Leu Ile Lys Lys Asp Gly
161 65                  70                  75                  80
164 Glu Val Val Glu Thr Ile Ile Gly Tyr Arg Pro Lys Glu Glu Leu Asp
165                 85                  90                  95
168 Glu Val Ile Asn Lys Tyr Val
169             100
172 <210> SEQ ID NO: 7
173 <211> LENGTH: 103
174 <212> TYPE: PRT
175 <213> ORGANISM: Saccharomyces cerevisiae
177 <400> SEQUENCE: 7
179 Met Val Thr Gln Phe Lys Thr Ala Ser Glu Phe Asp Ser Ala Ile Ala
180 1               5                   10                  15
183 Gln Asp Lys Leu Val Val Val Asp Phe Tyr Ala Thr Trp Cys Gly Pro
184             20                  25                  30
187 Cys Lys Met Ile Ala Pro Met Ile Glu Lys Phe Ser Glu Gln Tyr Pro
188         35                  40                  45
191 Gln Ala Asp Phe Tyr Lys Leu Asp Val Asp Glu Leu Gly Asp Val Ala
192     50                  55                  60
195 Gln Lys Asn Glu Val Ser Ala Met Pro Thr Leu Leu Leu Phe Lys Asn
196 65                  70                  75                  80
199 Gly Lys Glu Val Ala Lys Val Val Gly Ala Asn Pro Ala Ala Ile Lys
200                 85                  90                  95
203 Gln Ala Ile Ala Ala Asn Ala
204             100
207 <210> SEQ ID NO: 8
208 <211> LENGTH: 105
209 <212> TYPE: PRT
210 <213> ORGANISM: Gallus gallus
212 <400> SEQUENCE: 8
214 Met Val Lys Ser Val Gly Asn Leu Ala Asp Phe Glu Ala Glu Leu Lys
215 1               5                   10                  15
218 Ala Ala Gly Glu Lys Leu Val Val Val Asp Phe Ser Ala Thr Trp Cys
219             20                  25                  30
222 Gly Pro Cys Lys Met Ile Lys Pro Phe Phe His Ser Leu Cys Asp Lys
223         35                  40                  45
226 Phe Gly Asp Val Val Phe Ile Glu Ile Asp Val Asp Asp Ala Gln Asp
227     50                  55                  60
230 Val Ala Thr His Cys Asp Val Lys Cys Met Pro Thr Phe Gln Phe Tyr
231 65                  70                  75                  80
234 Lys Asn Gly Lys Lys Val Gln Glu Phe Ser Gly Ala Asn Lys Glu Lys
235                 85                  90                  95
238 Leu Glu Glu Thr Ile Lys Ser Leu Val
239             100                 105
242 <210> SEQ ID NO: 9
243 <211> LENGTH: 105
244 <212> TYPE: PRT
245 <213> ORGANISM: Mus musculus
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RAW SEQUENCE LISTING DATE: 09/24/2003
PATENT APPLICATION: **US/10/660,118** TIME: 10:37:18

Input Set : **A:\2879-98.ST25.txt**
Output Set: **N:\CRF4\09242003\J660118.raw**

247 <400> SEQUENCE: 9
249 Met Val Lys Leu Ile Glu Ser Lys Glu Ala Phe Gln Glu Ala Leu Ala
250 1 5 10 15
253 Ala Ala Gly Asp Lys Leu Val Val Val Asp Phe Ser Ala Thr Trp Cys
254 20 25 30
257 Gly Pro Cys Lys Met Ile Lys Pro Phe Phe His Ser Leu Cys Asp Lys
258 35 40 45
261 Tyr Ser Asn Val Val Phe Leu Glu Val Asp Val Asp Asp Cys Gln Asp
262 50 55 60
265 Val Ala Ala Asp Cys Glu Val Lys Cys Met Pro Thr Phe Gln Phe Tyr
266 65 70 75 80
269 Lys Lys Gly Gln Lys Val Gly Glu Phe Ser Gly Ala Asn Lys Glu Lys
270 85 90 95
273 Leu Glu Ala Ser Ile Thr Glu Tyr Ala
274 100 105
277 <210> SEQ ID NO: 10
278 <211> LENGTH: 105
279 <212> TYPE: PRT
280 <213> ORGANISM: Rattus norvegicus
282 <400> SEQUENCE: 10
284 Met Val Lys Leu Ile Glu Ser Lys Glu Ala Phe Gln Glu Ala Leu Ala
285 1 5 10 15
288 Ala Ala Gly Asp Lys Leu Val Val Val Asp Phe Ser Ala Thr Trp Cys
289 20 25 30
292 Gly Pro Cys Lys Met Ile Lys Pro Phe Phe His Ser Leu Cys Asp Lys
293 35 40 45
296 Tyr Ser Asn Val Val Phe Leu Glu Val Asp Val Asp Asp Cys Gln Asp
297 50 55 60
300 Val Ala Ala Asp Cys Glu Val Lys Cys Met Pro Thr Phe Gln Phe Tyr
301 65 70 75 80
304 Lys Lys Gly Gln Lys Val Gly Glu Phe Ser Gly Ala Asn Lys Glu Lys
305 85 90 95
308 Leu Glu Ala Thr Ile Thr Glu Phe Ala
309 100 105
312 <210> SEQ ID NO: 11
313 <211> LENGTH: 105
314 <212> TYPE: PRT
315 <213> ORGANISM: Bos taurus
317 <400> SEQUENCE: 11
319 Met Val Lys Gln Ile Glu Ser Lys Tyr Ala Phe Gln Glu Ala Leu Asn
320 1 5 10 15
323 Ser Ala Gly Glu Lys Leu Val Val Val Asp Phe Ser Ala Thr Trp Cys
324 20 25 30
327 Gly Pro Cys Lys Met Ile Lys Pro Phe Phe His Ser Leu Ser Glu Lys
328 35 40 45
331 Tyr Ser Asn Val Val Phe Leu Glu Val Asp Val Asp Asp Cys Gln Asp
332 50 55 60
335 Val Ala Ala Glu Cys Glu Val Lys Cys Met Pro Thr Phe Gln Phe Phe
336 65 70 75 80

RAW SEQUENCE LISTING DATE: 09/24/2003
PATENT APPLICATION: **US/10/660,118** TIME: 10:37:18

Input Set : **A:\2879-98.ST25.txt**
Output Set: **N:\CRF4\09242003\J660118.raw**

```
339 Lys Lys Gly Gln Lys Val Gly Glu Phe Ser Gly Ala Asn Lys Glu Lys
340                 85                  90                  95
343 Leu Glu Ala Thr Ile Asn Glu Leu Ile
344             100                 105
347 <210> SEQ ID NO: 12
348 <211> LENGTH: 105
349 <212> TYPE: PRT
350 <213> ORGANISM: Homo sapiens
352 <400> SEQUENCE: 12
354 Met Val Lys Gln Ile Glu Ser Lys Thr Ala Phe Gln Glu Ala Leu Asp
355 1               5                   10                  15
358 Ala Ala Gly Asp Lys Leu Val Val Val Asp Phe Ser Ala Thr Trp Cys
359             20                  25                  30
362 Gly Pro Cys Lys Met Ile Lys Pro Phe Phe His Ser Leu Ser Glu Lys
363         35                  40                  45
366 Tyr Ser Asn Val Ile Phe Leu Glu Val Asp Val Asp Asp Cys Gln Asp
367     50                  55                  60
370 Val Ala Ser Glu Cys Glu Val Lys Cys Met Pro Thr Phe Gln Phe Phe
371 65                  70                  75                  80
374 Lys Lys Gly Gln Lys Val Gly Glu Phe Ser Gly Ala Asn Lys Glu Lys
375                 85                  90                  95
378 Leu Glu Ala Thr Ile Asn Glu Leu Val
379             100                 105
382 <210> SEQ ID NO: 13
383 <211> LENGTH: 134
384 <212> TYPE: PRT
385 <213> ORGANISM: Arabidopsis thaliana
387 <400> SEQUENCE: 13
389 Met Gly Gly Ala Leu Ser Thr Val Phe Gly Ser Gly Glu Asp Ala Ala
390 1               5                   10                  15
393 Ala Ala Gly Thr Glu Ser Ser Glu Pro Ser Arg Val Leu Lys Phe Ser
394             20                  25                  30
397 Ser Ser Ala Arg Trp Gln Leu His Phe Asn Glu Ile Lys Glu Ser Asn
398         35                  40                  45
401 Lys Leu Leu Val Val Asp Phe Ser Ala Ser Trp Cys Gly Pro Cys Arg
402     50                  55                  60
405 Met Ile Glu Pro Ala Ile His Ala Met Ala Asp Lys Phe Asn Asp Val
406 65                  70                  75                  80
409 Asp Phe Val Lys Leu Asp Val Asp Glu Leu Pro Asp Val Ala Lys Glu
410                 85                  90                  95
413 Phe Asn Val Thr Ala Met Pro Thr Phe Val Leu Val Lys Arg Gly Lys
414             100                 105                 110
417 Glu Ile Glu Arg Ile Ile Gly Ala Lys Lys Asp Glu Leu Glu Lys Lys
418         115                 120                 125
421 Val Ser Lys Leu Arg Ala
422     130
425 <210> SEQ ID NO: 14
426 <211> LENGTH: 167
427 <212> TYPE: PRT
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/24/2003
PATENT APPLICATION: **US/10/660,118** TIME: 10:37:19

Input Set : **A:\2879-98.ST25.txt**
Output Set: **N:\CRF4\09242003\J660118.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 1,6

VERIFICATION SUMMARY
PATENT APPLICATION: **US/10/660,118**

DATE: 09/24/2003
TIME: 10:37:19

Input Set : **A:\2879-98.ST25.txt**
Output Set: **N:\CRF4\09242003\J660118.raw**

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0